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(54) HIGH-SPEED INK JET PRINTER

(57) Abstract:

PURPOSE: To obtain a high speed and steady printing property, by a method wherein a printing head is driven by a response frequency at a high-frequency band in order to keep clear from an influence exerted by a frequency band having undesirable characteristics.

CONSTITUTION: The number of dots in a longitudinal and a lateral direction of a matrix are A and B, a space in a lateral direction is B', a printing speed is C number of letters per sec, and a driving frequency of a printing head is (f). Electric signal pulses to the printing head, including a subpulse following a main pulse are composed to one set, and each parameter is properly selected to obtain a threshold P having less fluctuation and an appropriate liquid drop limit Q. If (f), which satisfies a formula, where f_1 is the minimum frequency having no appropriate liquid drop range; f_2 is the maximum frequency having no appropriate

liquid drop range; f_{MAX} is an upper limit frequency of an appropriate liquid drop range of a high-frequency range; (n) is an integer and $nB+B'-1$; B bar= $B+B'$, exists, the frequency (f) can be set to the maximum frequency of a working frequency.

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